## AMENDMENTS TO THE CLAIMS

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## LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

- (Currently amended) A method for identifying a peptide that binds to a surface having a target geometrical shape, comprising:
- a) contacting a first-solid-surface comprising a self-assembled-surfactant-monolayer-and comprising a first-geometrical-shape with a phage-display library under-reaction conditions; wherein the phage express an exogenous peptide;
- b) contacting a second solid-surface comprising the self-assembled surfactant monolayer and comprising a second geometrical shape with phage that bind to the first surface, wherein phage that bind to the second surface are excluded, and wherein the non-binding phage are recontacted with the first surface:
  - e) repeating step (b); and
- d) identifying a peptide that binds to the first surface and not the second surface; wherein the peptide of step (d) discriminates between the surfactant monolayer and the first geometrical shape.
- (a) exposing a library of phage to a target surface of a material having specific geometrical patterns, wherein each phage of at least a portion of the library of phage displays a different exogenous peptide sequence on a surface of the phage.
- (b) incubating the library of phage to produce bound phages that are bound to the target surface.
  - (c) removing the bound phages.

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(d) repeating steps (a) to (c) for a plurality of times.

(e) identifying one or more desired elements of the bound phages, wherein the one or

more desired elements are present in every evolution round of repeating steps (a) to (c), and

(f) isolating and sequencing the one or more phages having the one or more desired

elements

2. (Currently amended) The method of claim 1, wherein the target geometrical shape

of the first solid surface is a flat surface and the geometrical shape of the second solid surface is a

smooth or curved surface

3 (Canceled).

4. (Currently amended) The method of claim 1, wherein at least one of the first or

second-surfaces target surface is hydrophobic.

(Currently amended) The method of claim 1, wherein step (d) (e) is repeated at 5.

least three times

6. (Currently amended) The method of claim 5, wherein during each successive

round of step (e) (d), the-reaction conditions are more stringent than in a the prior round.

7. (Currently amended) The method of claim 1, further comprising amplifying the

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bound phagesphage using a sloppy amplification reaction.

8-9. (Cancelled)

10. (Currently amended) The method of claim 1, wherein the first or second

target surface is a substrate for scanning probe microscopy.

11. (Currently amended) The method of claim 1, wherein the first or second target

surface comprises graphite.

12. (Currently amended) The method of claim 11, wherein the first or second target

surface comprises highly ordered pyrolytic graphite.

13-14. (Cancelled)

15. (Currently amended) The method of claim 1, wherein the first or second target

surface is flat, smooth, or curved, and wherein the first or second target surface comprises boron

nitrate, lead sulfide, zinc selenide, cadmium selenide, cadmium sulfide, gallium arsenide,

aluminum arsenide, zinc sulfide, gallium nitrate, indium phosphate, or gallium arsenide.

(Currently amended) The method of claim 1, wherein the first or second target

surface comprises mica, silicon, or annealed gold.

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17. (Currently amended) The method of claim 1, wherein the first-or-second target

surface comprises Teflon.

18. (Currently amended) The method of claim 1, further-comprising determining

amino acid sequences which comprise the identified exogenous peptide.

19. (Currently amended) The method of claim 1, further-comprising

determining nucleotide sequences which encode the identified exogenous peptide.

20-36. (Canceled).

37. (New) The method of claim 1, comprising removing an unbound phage prior to

removing the bound phages.

38. The method of claim 1, wherein at least a portion of the target surface comprises a

surfactant

39. The method of claim 1, wherein the one or more desired elements present in every

evolution of repeating steps (a) to (c) are present differently.

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